HYUNDAI NEW THINKING. NEW POSSIBILITIES. Technical Service Bulletin	GROUP FUEL SYSTEM	NUMBER 13-FL-003
	DATE MAY 2013	MODEL(S) Genesis Coupe (BK), Sonata (NF/YF), Tucson (LM)
SUBJECT: FUEL SENDER INSPECTION PROCEDURE		

Description:
This bulletin outlines the procedure to inspect the fuel level sender. If any of the following symptoms are found, follow the inspection procedure described below.

Symptoms:
- Vehicles may display a check engine light on with the following DTC:
  - P0461: Fuel Level Sender Circuit Range/Performance
  - P0462: Fuel Level Sender Circuit Low Input
  - P0463: Fuel Level Sender Circuit High Input
  - B1562: Fuel Sender ERR (YF Only)
- Customer concern of an erratic or unresponsive fuel gauge.
- Fuel gauge does not reach the full level after filling the fuel tank.

Applicable Vehicles:
- 2012MY and later Genesis Coupe (BK) 2.0T / 3.8L
- 2006-2010MY Sonata (NF) 2.4L / 3.3L
- 2011MY and later Sonata (YF) 2.0T / 2.4L
- 2010MY and later Tucson (LM) 2.0L / 2.4L

Warranty Information:
Normal warranty applies.

Circulate To: General Manager, Service Manager, Parts Manager, Warranty Manager, Service Advisors, Technicians, Body Shop Manager, Fleet Repair

INSPECTION PROCEDURE:

I. Fuel Sender Resistance and Gauge Level Position

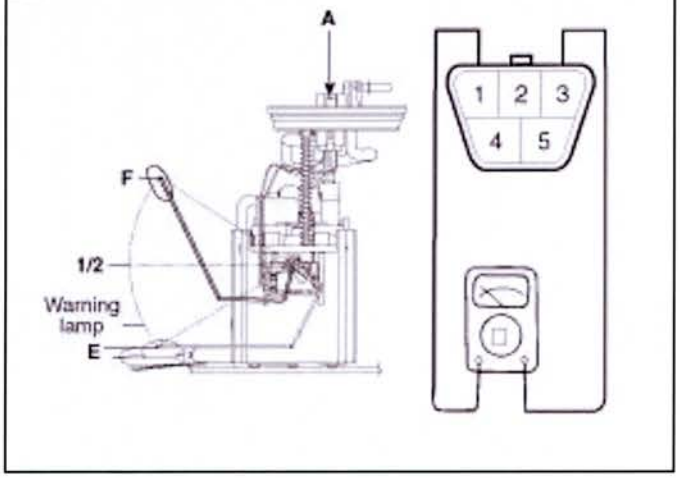
★ NOTE

- The vehicle should be parked on a level surface before checking the fuel level.

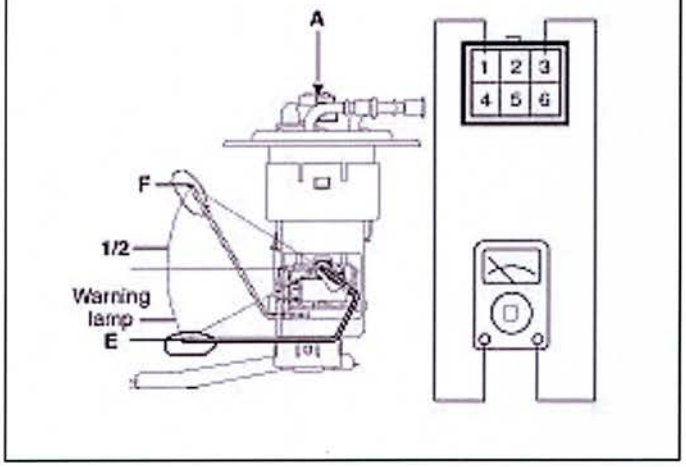
1. Turn the engine off and wait at least 40 seconds.
2. Gain access to the fuel pump by referring to the applicable Service Shop Manual: Fuel System → Fuel Delivery System → Fuel Tank → Repair procedures section.

3. Locate the fuel sender connector (A) on top of the fuel pump.

Genesis Coupe, Tucson, and 2011MY and later Sonata Fuel Sender Connector



2006-2010MY Sonata Fuel Sender Connector



4. Set multimeter to ohms and back probe the fuel sender connector (A) to measure the resistance between pins 1 and 3.

★ NOTE

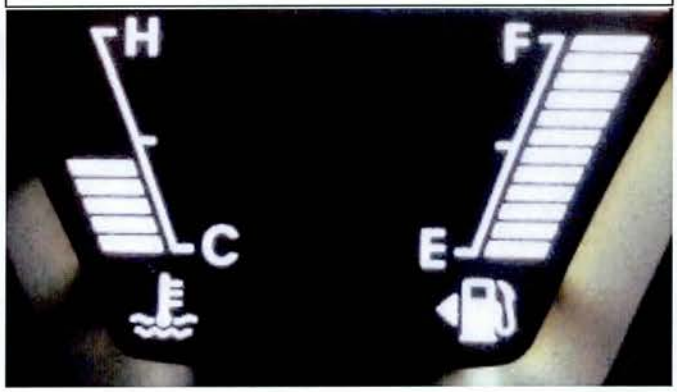
- Do not disconnect the fuel sender connector. The fuel gauge will reset if left disconnected for more than 30 seconds.

5. Compare measured resistance and the fuel gauge reading with the specifications below:

Fuel Gauge Position	Resistance Specifications (Ω)			
	2011MY and later Sonata	2006-2010MY Sonata	2012MY and later Genesis Coupe	2009MY and later Tucson
Empty (E)	198~202	182~202	191~195	182~202
Warning lamp On	168~172	168~172	185~189	168~172
1/2 Full	70~75	64~68	102~106	64~68
Full (F)	6~17	6~17	12~16	6~17

Fuel gauge at 1/2 Full

Fuel gauge at Full



6. If the resistance is out of specification or there is an open circuit, go to the sender sweep test.

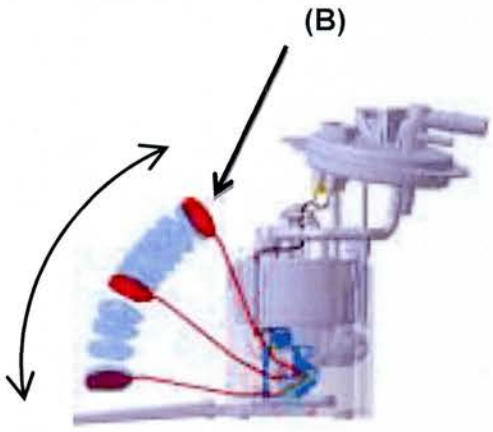
II. Sender Sweep Test

1. Disconnect the fuel sender connector and remove the fuel pump and fuel sender assembly. Refer to the applicable Service Shop Manual: Fuel System → Fuel Delivery System → Fuel Pump → Repair procedures section.

2. Measure the resistance between pins 1 and 3 on the fuel sender connector terminal.

3. Record the resistance at several positions of the fuel sender float arm (B).

- Lift the float arm to its highest position to take a "Full" reading.
- To take an "Empty" reading, let the float arm rest at its lowest point.



4. Compare resistance measurements with the specifications shown in the **Resistance Specifications** table on Page 3. If the measured resistance is **within** specifications, go to the related wiring inspection.

III. Related Wiring Inspection

1. Refer to the Electrical Troubleshooting Manual (ETM): Schematic Diagrams → Indicator & Gauges → Schematic Diagrams section.

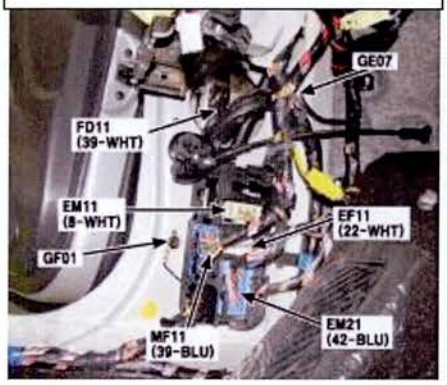
2. Inspect the instrument Cluster, Under Rear Seat, and Bottom Left "A" Pillar wiring harness for:

- Loose or corroded connectors
- Bent or chafed wiring
- Poor ground connections

Behind Instrument Cluster

Under Rear Seat

Bottom of Left "A" Pillar



3. Repair any damaged wiring or connections along the wiring harness.